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MEMORANDUM FOR: Director of Personnel Policy, Planning, and Management
 ATTENTION: Chief, Personnel Management and Classification Division
 THROUGH: Deputy Director for Science and Technology
 FROM: [REDACTED] STAT
 Director, Foreign Broadcast Information Service
 SUBJECT: Reorganization of FBIS Engineering Structure

1. This memorandum forwards a plan for the reorganization of FBIS' engineering structure both in Headquarters and the field. The reasons for the reorganization are set forth in detail in the attachment. Briefly, the FBIS engineering structure has remained essentially unchanged since World War II; it is no longer adequate to meet the technological challenges of the eighties.

2. During the past 18 months FBIS has taken a number of major steps to modernize its collection systems and catch up with advancing developments in broadcasting technology. Our FY-1980-85 planning projections call for several new major design and development projects and the further implementation of advanced collection technologies in the foreign field, e.g., collection from radio satellites, facsimile and TV signals, and long-distance digital data transmissions.

3. At present FBIS lacks the engineering organization needed to staff and manage these tasks and falls short of offering a grade structure which can attract and retain the skilled personnel who are needed. Modernization is overdue. It is important that it come quickly if we are to continue to serve the Intelligence Community's ever expanding and changing information needs.

4. I wish to move ahead promptly in implementing this new organization and I would appreciate your giving it priority consideration. In particular, the field engineering positions, with their increasing skill demands, should be validated by the PMCD officer who will visit a number of our overseas bureaus this spring.

[REDACTED] STAT

SUBJECT: Reorganization of FBIS Engineering Structure

CONCUR:

Deputy Director for Science and Technology

_____ Date

APPROVED:

Director of Personnel Policy, Planning, and
Management

_____ Date

FBIS/Ops/ [redacted] (12Mar81)

STAT

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27 February 1981

REORGANIZATION - FBIS ENGINEERING

1. During the past five years FBIS engineering has been confronted with a series of major new challenges which have arisen and will continue to arise with rapidly increasing speed. These challenges include:

- Steadily increasing collection requirements and targets;
- External, high-level pressures to aggressively pursue new collection approaches in attacking difficult targets;
- A deteriorating operational environment, e.g., hostile overseas environments, crowding of airwaves, adoption of new advanced transmission techniques by target transmitters, need to carry out collection activities under difficult or unpredictable signal propagation conditions which do not respond to traditional techniques;
- Increasing volume and complexity of technical collection and communications tasks without corresponding increase in manpower, technical skill levels and budgetary resources;
- Need to stay abreast of and evaluate technological advances in state-of-the art radio, communications and data processing technology and to plan and budget for appropriate applications to FBIS operations;
- The need to conceptualize, design and implement technological changes peculiar to the FBIS media collection source environment.

2. Simply stated, world radio and communications technology and U.S. national intelligence collection requirements are moving forward at such speed and at such levels of increasing complexity that the traditional FBIS engineering structure and methods soon will prove inadequate to meet the Agency's responsibilities. The following organization plan is proposed to equip FBIS to meet the continuing challenges of the eighties.

We conclude that the Agency will be best served by reorganizing the present Engineering Design and Support Staff and establishing a highly professional engineering division within the FBIS Operations Group. Staffing of the division should encompass a variety of skill levels in order to effectively deal with the multiplicity of tasks peculiar to FBIS engineering. Ranging from field supervision of foreign national technicians to detailed design studies, these tasks require a stable and diversified complement of staff engineering personnel. Clearly, within the division, there also must be the potential for professional and career growth while concurrently fulfilling technical requirements.

This is inherent in the proposed organization. Another notable aspect of this structure is that the location and number of overseas staff employees have been arranged to maximize effectiveness while minimizing cost and field presence.

3. The major points of the plan are:

- a. To create an organization capable of dealing with increased technical responsibilities in periods of finite or declining resources.
- b. To create an organization which is inherently capable of adapting to the potential of advanced technology.
- c. To maximize overall effectiveness, both in the field and at headquarters, while minimizing costs and the number of overseas positions.
- d. To create an organization which attracts and retains the appropriate skill levels necessary to deal with current and future technical requirements.
- e. To create the necessary career development plan which will allow for professional growth, advancement potential, and staff stability.

4. The engineering organization necessary to meet the major points of the plan fall into three main functional groupings. First is the distribution of the field personnel, second the headquarters Field Engineering Branch (FEB) and lastly the Development and Design Branch (DDB). These are dealt with separately and shown diagrammatically in figure one.

- a. The field organization is built on the concept of regional or area engineers of which there should be four. Three would be located at overseas sites and one based at headquarters. Depending upon the geographic location and the sophistication of the particular bureau the regional engineer may or may not be assisted at his foreign home base by resident bureau engineers. The concept involves the regional engineer being assigned responsibility for maintaining the various bureaus in his area at a complete state of readiness. In carrying out this duty he will direct those bureau engineers falling within his purview and personally maintain those bureaus without a resident staff engineer. The latter will be carried out through regular periodic visits, guidance and direction to the local technicians, and by implementing headquarters directives and guidelines. As can be seen from figure two this approach, taking into account travel time and cost plus the complexity of the various bureaus, stations regional engineers at Okinawa, Nicosia, Washington, and London. In each case but London the regional man is backed up by additional staff personnel. The situation at London is eased somewhat by having bureau engineers posted at Vienna and Abidjan and the support of the BBC for some London technical activities. Expansion of the monitoring network can easily be handled within

this framework by assigning new facilities responsibility to the appropriate geographic area and the regional engineer. Bureau engineers, where they exist, will of course remain under the administrative authority of the bureau chief but will receive technical and professional guidance from the regional engineer. Also to be considered are the skill levels of the foreign national technicians and the geographic diversity of the sites. These factors imply that the individual filling the regional engineering position must be free to travel as necessary, supervise large numbers of people, and have the appropriate technical capability. Such a position would be filled by a senior officer and further would represent a career track culmination that FBIS field personnel could aspire to.

b. The Field Engineering Branch (FEB) at headquarters would include the regional engineer for the Americas, support technicians, a logistics position and system engineering positions. All but the system engineering positions are self explanatory or have been described above. These latter positions form the base from which rotational overseas assignments are drawn. Headquarters assignments for the system engineers include the implementation of system and equipments being readied for field deployment, construction of new bureau facilities, and providing the necessary headquarters support to the field. Typical projects assigned to these individuals would be fabrication and installation of satellite earth terminals, design and implementation of remote receiving site installations, and signal processing equipment interface development. Three officers would be assigned in the system engineering category, however one would be assigned periodically to the Development Design Branch (DDB). The purpose of this assignment is two fold: It allows the system engineers to become involved at the earliest stage of unique designs and system studies; secondly it provides a professional growth opportunity in that the individual so assigned will be interacting with experienced senior level designers during the formative phase of emerging systems, i.e., an informal training program. The personnel staffing this branch will be under the direction of the Chief, FEB and range in skill level from technician to experienced system engineer/senior bureau engineer. All personnel will be in the field/Headquarters rotational cycle.

c. The Development and Design Branch (DDB), though the smallest group within the division, has the highest technical skill level requirements. Owing to static resource levels and the increasingly technical complexity of needed systems this branch will be staffed with two senior design engineers. These two engineers will be assigned as permanent headquarters employees and will only be in the field on occasional TDY trips. DDB will be responsible for analysis and design of unique technical requirements and equipments, monitoring of external research and development contracts, and conducting studies for future collection/processing systems. Analysis and design activities are expected to go to sufficient depth to

allow cost/benefit tradeoffs to be made and detailed specifications prepared. Because the focus will be on systems based on emerging technology these individuals must have significant demonstrated experience, found only in senior level professionals. Finite resources in terms of staff and funding dictate that DDB be capable of working with a minimum of margin for error. A parallel consideration is the branch's role in studying future systems and capabilities. Since it is upon these studies that future budgets and programs will in large part be based the highest level of objectivity and accuracy is required. In addition to the activities relating to equipment/system design the two members of this branch will periodically participate in training one of the system engineers by involving him in selected projects and they of course will also be available to the rest of the division as an inhouse consultant on a variety of subjects.

5. Authority and Chain of Command:

a. Regional and bureau engineers will be under the direction of the bureau chief. Operational guidance from headquarters is provided through the Operations Group. Technical guidance and direction is supplied from the Engineering Division through the regional engineers to bureau engineers and technicians. Performance Appraisal Reports (PAR) would be prepared as follows:

(1) Regional Engineers: The bureau chief prepares the PAR from the vantage point of the senior bureau official. The C/ED is the reviewing official.

(2) Bureau Engineers: The regional engineer prepares the PAR from the vantage point of the immediate technical supervisor. The bureau chief is the reviewing officer from the point of view of the senior local official. C/ED adds "Additional Reviewing Comments" if required.

Advance Work Plans are to be prepared, in consultation with the employee, by his/her immediate technical supervisor. In the case of field personnel these plans are closely coordinated in draft form with the senior local official, the Bureau Chief.

ENGINEERING DIVISION

FIELD ORGANIZATION

FIELD ENGINEERING
BRANCH

DESIGN & DEVELOPMENT
BRANCH

FIGURE 1.

FIELD ORGANIZATION

FAR EAST	Okinawa	<u>Regional Engineer</u> - GS-14	
		<u>Bureau Engineer</u> - GS-12	
		<input type="checkbox"/> local technicians	STAT
	Seoul	<input type="checkbox"/> local technicians	
	Hong Kong	<input type="checkbox"/> local technicians	
	Bangkok	<u>Bureau Engineer</u> - GS-12	
		<input type="checkbox"/> local technicians	STAT
EUROPE/WEST AFRICA	London	<u>Regional Engineer</u> - GS-14	
		<input type="checkbox"/> local technicians	STAT
	Vienna	<u>Bureau Engineer</u> - GS-12	
		<input type="checkbox"/> local technician	STAT
	Abidjan	<u>Bureau Engineer</u> - GS-12	
MIDDLE EAST/EAST AFRICA	Nicosia	<u>Regional Engineer</u> - GS-14	
		<u>Bureau Engineer</u> - GS-12	
		<input type="checkbox"/> local technician	STAT
	Tel Aviv	<input type="checkbox"/> local technician	
	Islamabad	---	
	Amman	<input type="checkbox"/> local technician	STAT
	Gulf	<u>Bureau Engineer</u> - GS-12	
NORTH/SOUTH AMERICA	Asuncion	<input type="checkbox"/> local technicians	STAT
	Panama	<input type="checkbox"/> local technicians	
	* Key West	Vacant at present	

*To be filled by a part-time contract employee in mid-1981.

FIGURE 2.

HEADQUARTERS ORGANIZATION

	Division Chief	GS-16
FEB	Chief	GS-14*
	Regional Engineer	GS-14**
	System Engineer	GS-13
	System Engineer	GS-12
	Elect. Technicians/2	GS-11
	Logistics Officer	GS-09
DDB	Chief	GS-15*
	Project Engineer	GS-14
	System Engineer	GS-13

*Acting Division Chief when so designated.

**Regional Engineer North/South America

FIGURE 3.